

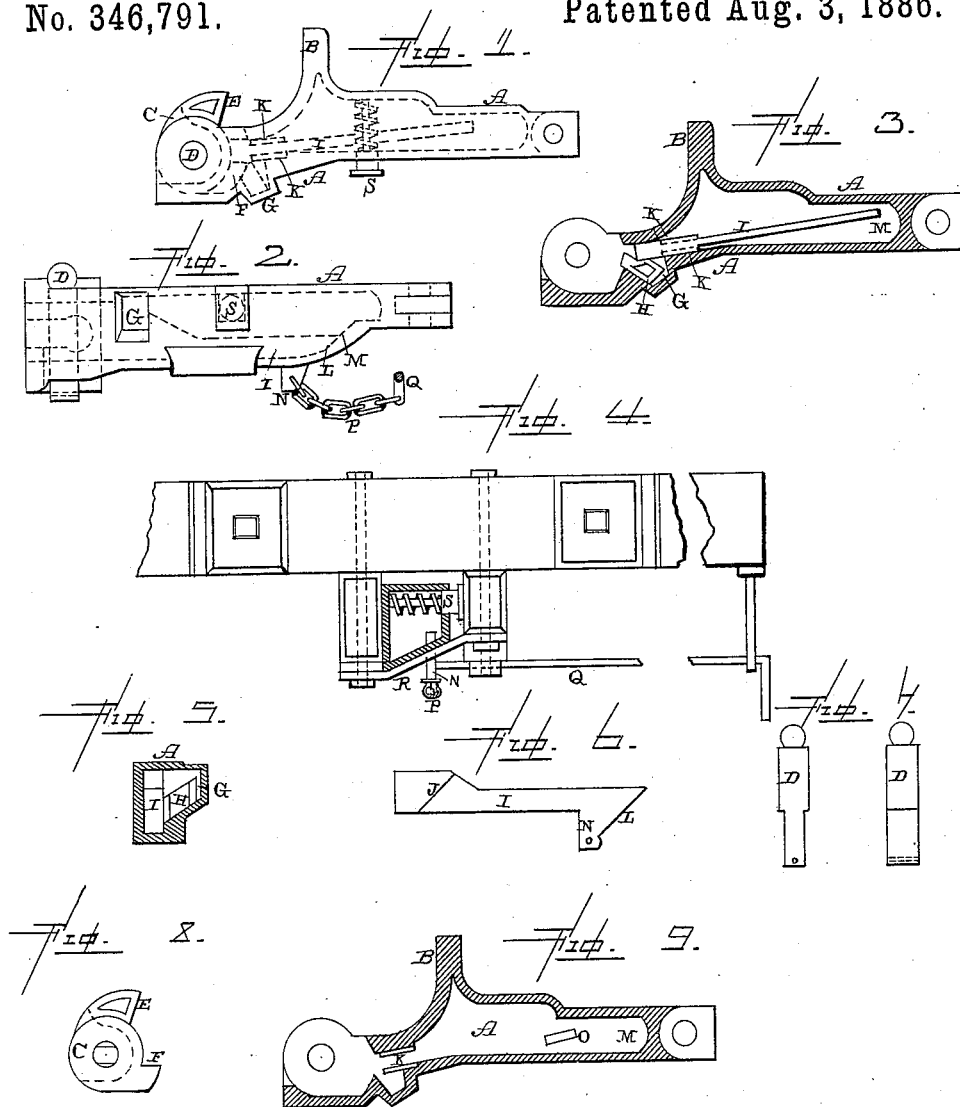
(No Model.)

F. A. WESTBROOK & W. S. COOK.

CAR COUPLING.

No. 346,791.

Patented Aug. 3, 1886.



Witnesses.

R. J. Gardner
A. W. Bruck

Inventors.

F. A. Westbrook,
W. S. Cook,
per F. A. Lehmann, atty.

UNITED STATES PATENT OFFICE.

FRANK A. WESTBROOK AND WINFIELD S. COOK, OF PORT JERVIS, N. Y.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 346,791, dated August 3, 1886.

Application filed June 8, 1886. Serial No. 204,506. (No model.)

To all whom it may concern:

Be it known that we, FRANK A. WESTBROOK and WINFIELD S. COOK, of Port Jervis, in the county of Orange and State of New York, have invented certain new and useful Improvements in Car-Couplings; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in car-couplings; and it consists in, first, the combination of the draw-heads, which are beveled upon their under sides where they rest in the stirrups, inclined stirrups, and spring-actuated rods for forcing the draw-heads down the inclines after they have been forced upward by coming in contact with each other; second, the combination of the turning head, the draw-head having inclined surfaces for the sliding rod to move upon, and a locking-wedge, which slides down an inclined pocket; third, in the arrangement and combination of parts, which will be more fully described hereinafter.

Figure 1 is a plan view of a draw-head embodying our invention. Fig. 2 is a side elevation of the same. Fig. 3 is a horizontal section. Fig. 4 is a vertical section taken through the draw-head at the point where it rests in the stirrup. Fig. 5 is a vertical section taken through the head at the pocket. Fig. 6 is a detail view of the sliding rod. Fig. 7 is a detail view of the coupling-pin. Fig. 8 is a plan view of the turning head alone. Fig. 9 is a horizontal section of the coupling-head, similar to what is shown in Fig. 3, but from which the different parts have been removed.

A represents the draw-head, which is provided with a buffer, B, upon one side and at a suitable distance beyond its front end. In the front end of the draw-head A is placed the turning head C, which is pivoted upon the coupling-pin D. The lower end of the pin is reduced in thickness, and is provided with a suitable stop, so that the pin can never be withdrawn from the head C, and thus leave it free to be moved from the draw-head A. By reducing the thickness of the lower end of the pin D it will pass through the standard-sized links, which are now in common use. In the

front side of this turning head C is made a pocket to receive the end of a coupling-link in case a car containing the present coupling should be brought in contact with the pin-and-link coupling. The turning head C is provided with a shoulder, E, and the stop F. Just back of the turning head, in the draw-head A, is formed a suitable pocket, G, which has an inclined bottom, and inside of which is placed a locking-wedge, H, which is intended when left free to move to slide down the inclined surface upon which it rests and catch in front of the front end of the sliding-rod I. When the turning head is in a position ready to be locked, the stop F strikes against this wedge H and forces it up the inclined bottom of the pocket G until the stop has passed by, and then the wedge slides down again, as shown in Fig. 1, against the side of the rod I, which automatically moves forward and locks the turning head into position. The sliding rod I has two inclined surfaces, J, formed upon opposite sides, near its front end, and these two inclined surfaces J bear upon the inclined surfaces K, formed inside of the coupling-head A. Upon the rear end of the sliding rod I is also formed an inclined plane, L, which bears upon the inclined plane M, formed in the rear end of the coupling-head A, and which incline M acts, in conjunction with the two inclines K, for the purpose of causing the rod I to move forward from its own gravity as soon as it is left free to move. Also, formed upon the rear end of this rod I is a vertical section, N, which passes down through a hole, O, formed in the bottom of the draw-head A, and to which extension a chain, P, and crank-rod Q are connected. This rod Q extends out to one side of the car, where it can be readily operated without having to go between the cars for the purpose of uncoupling them, and when this rod Q is turned the rod I is drawn backward inside of the draw-head A up the inclines K M. As long as this rod I is held back out of contact with the turning head the turning head is left free to be turned upon its pivot for the purpose of uncoupling. When, however, the rod is allowed to slide forward, its front end catches behind the stop F on the head C, and thus locks the head rigidly in position. When the rod I is moved into the position shown in Fig. 1, the stop F moves the wedge H back into its pocket, and then the

rod I slides forward and catches behind the stop. When the rod I is drawn backward, the cars are ready to uncouple. Each draw-head is supported upon the inclined stirrup R, as shown in Fig. 4, and the under side of the draw-head is beveled away at this point, so as to correspond to the inclination of the stirrup, which extends from one draft-timber to the other. Passing horizontally through the upper portion of the draw-head A is a spring-actuated rod, S, which has its headed end to bear against one of the timbers. When two cars run together, the shoulders E on the turning head C cause the front ends of the draw-heads A to move backward from each other, so as to allow the shoulders E to pass each other, and in thus moving backward the heads are forced up the inclined stirrups R, thus compressing the springs upon the rods S. After the shoulders E have passed each other, the springs at once force the heads down the inclines again, and thus cause the shoulders to catch behind each other, and thus couple the cars together. The draw-heads are pivoted at their rear ends by means of the draft-bolts, which are passed through them, and hence have a pivoted movement, so as to move horizontally backward from each other; as above described. In case the draft-rod should break, the projection N upon the coupling-pin I will catch against the stirrup R, and thus prevent the draw-head from being pulled out of position upon the car.

Having thus described our invention, we claim—

1. The combination of the draw-head having its under side beveled or inclined, the inclined stirrup, the spring-actuated rod which extends through the draw-head, and the turning head in the front end of the draw-head, the draw-head being pivoted, so as to have a lateral movement at its front end, substantially as shown.

2. The combination of the draw-head A, provided with the inclines K M, the sliding rod I, provided with inclines, and the projection N, the chain P, and the rod Q, substantially as described.

3. The combination of the draw-head A, provided with the inclines K M, and the opening O through its bottom, with the sliding rod I, provided with inclines J L, the chain P, rod Q, the sliding wedge, and the turning head, substantially as set forth.

4. The combination of the draw-head, the turning head pivoted therein and provided with the stop F, and the shoulder E, with the pocket C, having the inclined bottom, the wedge H, the sliding rod I, and a mechanism for drawing the rod backward, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK A. WESTBROOK.
WINFIELD S. COOK.

Witnesses:

CORNELIUS G. LOCKWOOD,
W. E. MCCORMICK.